



**Release 4.2**

## **Model Methodology**

### **Expense Module**

(Book VI of VII)

**Verizon**

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## ICM MODEL METHODOLOGY PACKAGE

➤ Conceptual Framework	Book I
➤ Loop Module	Book II
➤ Switch Module	Book III
➤ Interoffice Transport Module	Book IV
➤ SS7 Module	Book V
➤ <b>Expense Module</b>	<b>Book VI</b>
➤ Mapping/Report Module	Book VII

## EXPLANATORY NOTE

In the following documentation, “Verizon” is used to refer to the former GTE Corporation, and its operations which are now part of Verizon Communications along with the former Bell Atlantic Corporation.

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# ICM EXPENSE MODULE OVERVIEW

The Expense Module of Verizon's Integrated Cost Model (ICM) is designed to develop:

- (1) *Capital Cost factors* used to convert the investments developed in the Loop, Switch, Interoffice Transport and SS7 modules into annual expense amounts.
- (2) *Operating Expenses* that are associated with the ICM modeled network investment components.
- (3) *Shared Costs*, a component of operating expenses, that are in direct support of and can be associated with multiple parts of the network or groups of services, but that can not be directly associated with a specific element of the network, unbundled network element (UNE), product or service.
- (4) *Common Costs* that are incurred in support of all products, services and network elements but are not directly attributable to the provision of a specific product, service or unbundled network element.

The *Capital Cost factors* and *Operating Expenses* developed in the Expense Module are available to the Mapping / Report Module in ICM where they are applied to the appropriate modeled investment or product / service to produce the monthly costs applicable for each unbundled network element or product and service. Figure UNE.1 provides an example of an ICM output report with the computation of monthly costs for a specific UNE.

**Figure UNE.1**

**UNBUNDLED NETWORK ELEMENTS  
NETWORK SERVICES**

Network Services	Investment	Depreciation and Return	Composite Income Tax	Property Tax	Maintenance & Support	Marketing	B/C and Directory	TELRIC
Loops Basic								
Basic NAC - 2 Wire	1343.83	205.06	59.46	10.49	46.45	18.78	7.16	28.95
Additional Cost of Unbundling - 2 Wire	148.70	30.71	4.60	1.16	14.29	2.90	0.00	4.47

Capital Costs                      Operating Expenses

*Note: The numbers shown are for presentation purposes only.*

# ICM EXPENSE MODULE METHODOLOGY

## Capital Cost Factors

The capital cost factors developed in the Expense Module of ICM are designed to recover the cost associated with cost of capital, depreciation expense, property taxes and state and federal income taxes. ICM calculates and applies three separate factors to the modeled investment within ICM to determine the amount of necessary costs associated with each investment to be recovered. The capital cost factors developed within ICM are:

- Depreciation & Return
- Composite Income Tax
- Property Tax

### Depreciation & Return

The **Depreciation & Return** factor includes both a *return on* and a *return of* invested capital. The *return on* component of the factor is the cost of capital or rate of return. The *return of* component of the depreciation & return factor represents depreciation expense. The formula used to compute the depreciation & return factor is detailed in Appendix D1. A separate depreciation & return factor, based on this formula, is calculated for each plant investment account utilizing jurisdiction specific Expense Module data inputs related to rate of return, plant depreciable lives and salvage values. Appendix A provides a complete listing of FCC Part 32 plant accounts.

### Composite Income Tax

The **Composite Income Tax** factor is used to calculate the amount of state and federal income taxes applicable to the cost developed by ICM. The composite income tax factor is calculated for each plant investment account category by incorporating statutory state and federal income tax rates, depreciation rates, the weighted average cost of capital, capital structure and cost of debt. The computation for this factor also accounts for differences that may exist between book and tax depreciation methods and is designed to reflect any tax benefits available under the Internal Revenue Service (IRS) Modified Accelerated Capital Recovery System (MACRS) as a result of any such differences. The formula used to compute the composite income tax factor is detailed in Appendix D2.



## Property Tax

The **Property Tax** factor utilized in ICM is calculated by taking the ratio of current annual property tax expense to the current gross taxable plant balance.

## Operating Expenses

Operating expenses are developed in ICM utilizing a combination of two interdependent costing methodologies. These two methodologies allow Verizon to analyze and accurately assign its operating expenses based on a cost causative approach. The two methodologies employed in the computation of operating expenses within ICM are the:

- Cost Pool methodology, and;
- Activity Based Cost (ABC) methodology.

### Cost Pool Methodology

The *cost pool* methodology develops forward-looking expenses as a ratio of expenses to investments (E/I). The computation of this ratio (also referred to as the *maintenance & support* factor) is based on a multi-step process as illustrated in Appendix C2. This multi-step process is summarized as follows:

- 1) **Base data:** The starting point for the cost pool methodology, Verizon's expense and investment data, is based upon the books and records of Verizon as summarized in the annual ARMIS Joint Cost Report (43-03), which is filed with the FCC. The ARMIS data is further identified by individual FCC Part 32 accounts and work centers. Work centers are utilized by Verizon as the primary building block for cost centers and are used to capture and report the expense information of a managerial unit or function. It is at this level of detail that the operating expenses and investments of Verizon are analyzed and assigned using the cost pool methodology.
- 2) **ARMIS Adjustments:** Certain accounting normalization adjustments are made to the detailed ARMIS data to create a baseline level of expense and investment data for input into ICM. Later in the process certain other types of adjustments are made to produce forward looking operating expenses and to remove costs related to other cost studies such as ABC studies, avoided cost studies, non-recurring studies, and other special studies. Also, in the process, adjustments are developed to bring book plant investments to a current level of cost. All adjustments made to the ARMIS base data are reflected in the detailed expense documentation.

- 3) **Adjusted ARMIS Data:** The adjusted baseline data is computed for each FCC Part 32 account as follows:

$$\text{ARMIS Base Data} + (2) \text{ ARMIS Adjustments}$$

- 4) **Cost Pool Mapping:** The adjusted ARMIS expense and investment data for each FCC Part 32 account is mapped to one of the twenty-one costs pools that have been established by Verizon to classify costs, based on functionality, to various network elements, special studies, lines of business and common costs. The cost pools utilized by Verizon in the mapping process are detailed in Appendix C1 and include:

<u>Category</u>	<u>Cost Pool</u>
<b>Network Elements:</b>	Cable
	Aerial Non-Metallic Cable
	Aerial Metallic Cable
	Buried Non-Metallic Cable
	Buried Metallic Cable
	Underground Non-Metallic Cable
	Underground Metallic Cable
	Poles
	Conduit
	Transmission
	Switching
	Direct Other
<b>Special Studies:</b>	Access
	Information, Originating & Terminating (IOT)
	Operator Services
	Public Communications
<b>Common Costs:</b>	Billing & Collection
	Lines of Business:
	Consumer
	Business
	Carrier
	Common

The process of mapping expense and investment data to cost pools utilizes accounting information at the work center level which is mapped to a cost pool based on the work center functionality. Investment balances for the respective plant accounts are also mapped to their relative cost pool network function.

- 5) Development of Cost Pool Fractions:** After the completion of the cost pool mapping process, the costs assigned to individual cost pools for each FCC Part 32 account is converted to a fraction. The cost pool fractions are computed by dividing the expenses assigned to each cost pool by the total account balance for each individual account. These fractions represent the proportion of each account balance assigned to each cost pool.

### **Development of Total Expenses after Adjustments:**

- 6) Expense Adjustments:** In addition to the accounting normalization entries discussed above, certain other adjustments are included in ICM to produce forward looking costs and to remove costs that have been included in other studies such as Activity Based Cost (ABC), Non-Recurring Cost (NRC), Avoided Cost and miscellaneous special studies. These adjustments are input into ICM for each individual FCC Part 32 expense account through the use of three factors: Adjust1, Adjust2 and Adjust3. A breakdown of the types of activities associated with each adjustment factor is as follows:

- **Adjust1:** Adjustment factor 1 removes costs from the Adjusted ARMIS data relating to the following cost studies:
  - Avoided Cost (wholesale only)
  - Billing & Collection
  - Non-Recurring Cost
  - Collocation
  - Directory Cost

In addition, other adjustments included as part of Adjust1 relate to any applicable miscellaneous regulatory / normalization entries.

- **Adjust2:** The second expense adjustment factor pertains to the removal of costs from the Adjusted ARMIS data relating to the following ABC studies:
  - Service Assurance / Repair & Maintenance
  - Sales, Marketing & Advertising

- **Adjust3:** The third expense adjustment factor is used to eliminate the entire Adjusted ARMIS expense amount for a given FCC Part 32 account based on the following criteria:
  - Non-forward looking costs, such as account 6211 (Analog Switch), 6215 (Electro-mechanical Switch) and 6431 (Aerial Wire).
  - When the combination of Adjust1 plus Adjust2 exceeds 100%

**7) Adjusted Expense Amount:** The Adjusted Expense Amount for each individual account is computed as follows:

$$\text{Adjusted ARMIS Expense Data} * [ [ 1 - (1 - \text{Adjust1}) - (1 - \text{Adjust2}) ] * \text{Adjust3} ]$$

**8) General Support Expenses:** In addition to the operating expenses incurred by Verizon related to general support expenses (i.e., FCC Part 32 account 6112 through 6124), Verizon also calculates and includes the capital costs associated with General Support Facility assets (i.e., FCC Part 32 account 2111 through 2124). The capital carrying cost for each general support asset account is computed as follows:

$$\text{Adjusted ARMIS Investment Data} * \text{Adjust1} * \text{Adjust2} * \text{Adjust3} * \\ (\text{Depreciation \& Return factor} + \text{Composite Inc Tax factor} + \text{Property Tax factor})$$

The capital carrying cost for each general support asset account is distributed on the basis of the respective cost pool fractions for the associated expense account (e.g., Account 2124 follows the cost pool assignment of account 6124).

**9) Distribution of Direct Other and Cable Cost Pools:** After Total Expenses for each cost pool has been computed, ICM distributes the costs assigned to the Direct Other and Cable cost pools as follows:

- “Direct Other” Cost Pool Assignment – The redistribution of “Direct Other” expenses is based on the relationship between the total for each network cost pool and the sum of all Network cost pools (Cable, Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic, Underground Metallic, Poles, Conduit, Transmission, Switch and IOT) and is computed as follows:

(Each specific network cost pool amount / sum of all network cost pools)

\* Total Direct Other Cost Pool expense

- “Cable” Cost Pool Assignment - Redistribution of shared cable costs such as OSP Construction and Engineering cost to the Cable cost pools (i.e.- Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic and Underground Metallic) is completed as follows:

(Each specific cable cost pool amount / sum of all cable cost pools)

\* Total Cable Cost Pool expense

**10) Total Expenses:** After the distribution of the Direct Other and Cable cost pools, total expenses for each cost pool is computed as follows:

Adjusted Expense Amount + General Support Expense

### **Development of Total Investment after Adjustments:**

**11) Investment Adjustments:** Similar to the expense adjustments discussed above, investment adjustments are input into ICM for each individual FCC Part 32 investment account through the use of three factors: Adjust1, Adjust2 and Adjust3. A breakdown of the types of activities associated with each adjustment factor is as follows:

- **Adjust1:** Investment adjustment 1 applies a C.A. Turner index to each FCC Part 32 investment account in order to adjust the average plant investment balance to current reproduction cost. It is also used to eliminate collocation investment costs.
- **Adjust2:** The second investment adjustment is not currently used and is set equal to one in the filing.
- **Adjust3:** The investment adjustment 3 factor is used to:
  - Eliminate the entire Adjusted ARMIS investment amount for a given FCC Part 32 account for non-forward looking costs, such as account 2211 (Analog Switch), 2215 (Electro-mechanical Switch) and 2431 (Aerial Wire).
  - Calibrate the C.A. Turner adjusted ARMIS investment data associated with switch, circuit equipment and outside plant (OSP) accounts to the levels calculated by the Switch, Loop, Interoffice Transport and SS7 modules of ICM.

**12) Total Investment:** Total investment is computed as follows:

$$\text{Adjusted ARMIS Investment Data} * \text{Adjust1} * \text{Adjust2} * \text{Adjust3}$$

**13) Computation of Maintenance & Support Factors:** After the distribution of the Direct Other and Cable cost pools, ICM computes the Maintenance & Support factors for each network cost pool as follows:

$$\text{Total Expenses by cost pool} / \text{Total Investment by cost pool}$$

The maintenance & support factor for each cost pool is then used in the Mapping / Report Module of ICM where they are applied to the appropriate modeled investment to calculate the monthly maintenance & support cost applicable for each unbundled network element or product and service.

## “Activity Based Cost (ABC)” Methodology

The second methodology used in ICM for computing operating expenses is the "Activity Based Cost (ABC)" study approach. The ABC methodology provides Verizon a better understanding of the forward-looking nature of certain activities and allows a more precise assignment of the cost of those activities to the causative UNE, product or service. The ABC methodology incorporates the specific study, identification, definition and costing of activities performed by people and systems in each work center and the identification of the associated costs by cost object, i.e. UNE's, products and services. The costs associated with primary and supporting activities are assigned to UNE's, products and services through the use of various activity drivers. In other words, the cost of a work center is assigned to the cost object that a work center supports. The activity based cost developed from these studies become inputs into ICM and are included in the development of UNE, product or service costs in the Mapping / Report Module of ICM.

Activity based costing studies are prepared for the following four functional activities:

- Service Assurance
- Sales, Marketing & Advertising
- Billing & Collection
- Directory Cost

**(1) Service Assurance** is defined as the process of maintaining service levels that consistently meet customer and commission expectations and requirements. The service assurance cost study identifies work activities related to repairing and maintaining network operations performed by Verizon work centers in the Network Services organization. These activities include monitoring the network infrastructure, providing product support, restoring services, and performing preventive maintenance. The methodology utilized in this study requires the identification and costing of those activities associated with Verizon personnel and Information Technology / Data Processing (IT/DP) systems in each work center engaged in service assurance activities. Forward-looking costs are incorporated into the service assurance study by utilizing work center management to forecast the impact of any known or planned changes to staffing levels, process modifications, and/or technology enhancements. Activity costs identified through this study are assigned to specific unbundled network elements, products and services based upon their respective consumption of demand units.



The costing principles employed in the service assurance study, as well as the associated detailed supporting documentation, are included in the ICM filing documentation.

**(2) Sales, Marketing & Advertising:** The purpose of this study is to determine the recurring Total Service Long Run Incremental Cost (TSLRIC) and Total Element Long Run Incremental Costs (TELRIC) for regulated sales, marketing and advertising (SM&A) expenses associated with products and services. This study is broken down into three market segment studies based on the type of customer and the services provided. The three studies include:

- Business Market
- Consumer Market
- Carrier Market

The entire sales, marketing & advertising activity based cost study, complete with all supporting documentation for each market, can be found in the ICM filing documentation.

**(3) Billing & Collection:** The Billing & Collection (B&C) activity based cost study consists of two separate studies. The first study focuses on the “*End User*” billing activity that is associated with residential, business and intralata toll customers. This study develops a cost per *access line* and a cost per intralata toll message for all end user billing and collection related activities. The second study deals with the “*Carrier Access Billing Services (CABS)*” for inter-exchange carriers. The CABS study develops the costs per *minute of use* (MOU) for all carrier access billing and collection service related activities.

The entire billing & collection activity based cost study can be found in the ICM filing documentation.

**(4) Directory Cost:** The Directory study develops the monthly recurring retail and wholesale white page directory costs. This study is focused on three major types of white page directory listings:

- Primary Listings (or main listings), which are basic, single-line listings which are provided to residential and business customers at no incremental fee.
- Premium Listings (or additional listings) include more information than the primary listings. A premium listing occupies no less than two lines in a white page directory. The additional listing is often referred to as a caption.

- Privacy Listings (non-listed or non-published) entail any listing which does not appear in white page directories due to a customer's request for privacy.

Directory costs are assigned to one of the three building blocks listed above. Only the unit costs applicable to primary listings are used in ICM. The complete directory study can be found in the ICM filing documentation.

## Network Services Shared Costs

Network Services shared costs are those costs that are incurred in direct support of multiple parts of the network or groups of services, but can not be directly associated with a specific element of the network, UNE, product or service. In the development of its shared costs, Verizon has identified four categories of shared costs. The four categories include:

- (a) ***Outside Plant*** shared costs are those costs related to the parts of the network (poles, aerial, buried and underground cable (copper and fiber) and conduit) that are used to provide UNE's and services (2Wire, R1, etc.) provided by the loop connection.
- (b) ***Transmission*** shared costs are those costs that have been identified to be associated with circuit equipment.
- (c) ***Switching*** shared costs are those costs that are associated with Central Office equipment and used in the provisioning of services provided by the central office switching equipment.
- (d) ***Network*** shared cost represent the costs that are directly related to the supervision and management of the entire network utilized to provide UNE's, products and services, but *not* to a specific UNE, product or service.

## Retail Non-Network Shared Costs

Retail non-network shared costs are those non-network costs incurred in direct support of multiple retail activities, but cannot be directly associated with a specific retail product or service. Retail non-network shared costs are identified in totality for use and assignment for recovery by Verizon's pricing group. See Appendix M on how these costs are calculated. ICM does not assign retail non-network shared costs to UNE's, TELRIC's, TSLRIC's or Common Costs.

## Common Costs

Common costs are those costs that can not be specifically assigned to the network or to specific UNE's or services but are incurred by a firm in support of all UNE's, products and services, (Examples of Common Costs include finance, human resources and legal expenses). The computation of common costs within ICM is determined utilizing the "Cost Pool" methodology outlined above. Total common costs are identified in the following cost pools:

- billing & collection
- lines of business (consumer, business and carrier)
- common

Common costs are those costs that are required to manage and operate the entire company. Common costs are identified in totality for use and assignment for recovery by Verizon's pricing group. ICM does not assign common costs to UNE's, TELRIC's or TSLRIC's.

## ICM Expense Module – Data Input Tables

There are five database input tables associated with the Expense Module of ICM. These tables include:

<b>Table Description:</b>	<b>Table Name:</b>	<b>Table Overview:</b>
Account	(XXGTEEXP.DB)	Appendix E
Plant Life	(XXPLNTLF.DB)	Appendix F
Base	(XXEXBASE.DB)	Appendix G
Property Tax	(XXPROPTAX.DB)	Appendix H
Non_BNF & Activity Based Costs	(XXNBNF.DB)	Appendix I
Avoided Costs	(XXAC.DB)	Appendix J

The first four tables listed above contain the data required by ICM in the development of the *Capital Cost* factors and the *Maintenance & Support* operating expense factors identified through the “cost pool” methodology. The fifth table contains the cost inputs associated with the service assurance, sales, marketing & advertising, billing & collection and directory costs developed using the ABC methodology. The sixth table contains the avoided costs associated with retail only activities, which are excluded from ARMIS balances when performing wholesale cost studies.

A detailed description of each table, and its location within ICM, is provided in the Appendixes listed above.

## ICM Expense Module – Output Tables / Reports

The information input into the Expense Module database tables discussed in the previous section are processed by ICM and produce the following Output Tables and Reports:

<b>Output Table Description:</b>	<b>Table Name:</b>	<b>Table Overview:</b>
Expense Results Table	(EXPRSLT.DB)	Appendix K
Joint / Shared Cost Table	(EXPJOINTSHARED.DB)	Appendix L
Retail Non-Network Shared	(EXPRETAILNNSHARED.DB)	Appendix M
Common Cost Table	(EXPCCWORKSHEET.DB)	Appendix N

<b>Output Report Description:</b>	<b>Report Name:</b>	<b>Report Overview:</b>
Shared Cost Report:		
Page 1	Network Services Shared Cost	Appendix O
Page 2	Retail Non-Network Shared Costs [only produced for TSLRIC studies]	Appendix O
Page 3	Summary of Common Costs	Appendix O

## APPENDIX A: FCC Part 32 Account Code Descriptions - Plant Investment Accounts

ACCOUNT CODE	ACCOUNT TYPE	DESCRIPTION
211100	Land	Includes the original cost of all land held in fee and of easements, and similar rights in land having a term of more than one year used for purposes other than the location of outside plant or externally mounted central office equipment. Also includes special assessments upon land for the construction of public improvements.
211200	Motor Vehicles	Includes the original cost of motor vehicles of the type which are designed and routinely licensed to operate on public streets and highways.
211300	Aircraft	Includes the original cost of aircraft and any associated equipment and furnishings installed as an integral part of the aircraft.
211400	Special Purpose Vehicles	Includes the original cost of special purpose vehicles generally having a service life in excess of two years. It also includes tools and work equipment permanently mounted or forming a part of the vehicle.
211500	Garage Work Equipment	Includes the original cost of tools and equipment used to maintain Motor Vehicles, Aircraft, Special Purpose Vehicles, and Other Work Equipment.
211600	Other Work Equipment	Includes the original cost of power-operated equipment, general-purpose tools and other items of work equipment.
212100	Buildings	Includes the original cost of buildings, and the cost of all permanent fixtures, machinery, appurtenances and appliances installed as a part thereof. It also includes costs incident to the construction and/or purchase of a building and to securing possessions and title.
212200	Furniture	Includes the original cost of furniture in offices, storerooms, shops, and all other quarters. It also includes the cost of objects, which possess aesthetic value, are of original or limited edition, and do not have a determinable useful life (Artwork).
212300	Office Equipment	Includes the original cost of office equipment in offices, shops and all other quarters.
212400	General Purpose Computers	Includes the original cost of computer peripheral devices, which are designed to perform general administrative information processing activities.
221100	Analog Electronic Switching	Includes the original cost of stored program control analog circuit-switching and associated equipment. It also includes the cost of remote analog electronic circuit switches.

ACCOUNT CODE	ACCOUNT TYPE	DESCRIPTION
221200	Digital Electronic Switching	Includes the original cost of Stored Program Control Digital Switches and their associated equipment. Included in this account are digital switches, which utilize either dedicated or non-dedicated circuits. It also includes the cost of remote digital electronic switches.
221500	Electro-Mechanical Switching	Includes the original cost of non-electronic circuit-switching equipment.
222000	Operator Systems	Includes the original cost of those items of equipment used to assist subscribers in utilizing the network, and equipment used in the provision of directory assistance, call intercept, and other assisted call completion activities.
223100	Radio Systems	Includes the original cost of ownership of radio transmitters and receivers.
223200	Circuit Equipment	Includes the original cost of equipment which is used to reduce the number of physical pairs otherwise required to serve a given number of subscribers by utilizing carrier systems, concentration stages or combinations of both. It includes equipment that provides for the simultaneous use of a number of interoffice channels on a single transmission path and includes equipment, which is used for the amplification, modulation, regeneration, circuit patching, balancing or control of signals transmitted over interoffice communications transmission channels.
235100	Public Telephone Terminal Equipment	Includes the original cost of coin-less, coin-operated (including public and semi-public), credit card and pay telephones installed for use by the public.
236200	Other Terminal Equipment	Includes the original cost of other Non-CPE terminal equipment not specifically provided for elsewhere and items such as specialized communications equipment provided to meet the needs of the disabled, over-voltage protection equipment, and multiplexing equipment.
241100	Poles	Includes the original cost of poles, cross-arms, guys and other material used in the construction of pole lines and shall include the cost of towers when not associated with buildings.
242110	Metallic Aerial Cable	Includes the original cost of metallic aerial cable and of drop and block wire served by such aerial wire as well as the cost of other material used in the construction of such plant. It also includes the original cost of single or paired conductor cable, wire and other associated material used in constructing a physical path for the transmission of telecommunications signals.



<b>ACCOUNT CODE</b>	<b>ACCOUNT TYPE</b>	<b>DESCRIPTION</b>
242120	Nonmetallic Aerial Cable	Includes the original cost of nonmetallic aerial cable and of drop and block wire served by such aerial wire as well as the cost of other material used in the construction of such plant. It also includes the original cost of optical fiber cable, and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242210	Underground Cable – Metallic Cable	Includes the original cost of metallic underground cable installed in conduit and of the cost of other material used in the construction of such plant. It also includes the original cost of single or paired conductor cable, wire and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242220	Underground Cable- Nonmetallic Cable	Includes the original cost of nonmetallic underground cable installed in conduit and of the cost of other material used in the construction of such plant. It also includes the original cost of optical fiber cable, and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242310	Buried Cable – Metallic	Includes the original cost of buried metallic cable as well as the cost of other material used in the construction of such plant. It also includes the original cost of single or paired conductor cable, wire and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242320	Buried Cable – Nonmetallic	Includes the original cost of buried nonmetallic cable as well as the cost of other material used in the construction of such plant. It also includes the original cost of optical fiber cable, and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242410	Submarine Cable – Metallic	Includes the original cost of submarine metallic cable as well as the cost of other material used in the construction of such plant. It also includes the original cost of single or paired conductor cable, wire and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242420	Submarine Cable – Nonmetallic	Includes the original cost of submarine nonmetallic cable as well as the cost of other material used in the construction of such plant. It also includes the original cost of optical fiber cable, and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242510	Deep Sea Cable – Metallic	Includes the original cost of single or paired conductor cable, wire and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242520	Deep Sea Cable – Non-metallic	Includes the original cost of optical fiber cable and other associated material used in constructing a physical path for the transmission of telecommunications signals.

ACCOUNT CODE	ACCOUNT TYPE	DESCRIPTION
242610	Intra-building Network Cable – Metallic	Includes the original cost of metallic cables and wires located on the company's side of the demarcation point or standard network interface inside subscriber's buildings or between buildings on one customer's same premises. It also includes the original cost of single or paired conductor cable, wire and other associated material used in constructing a physical path for the transmission of telecommunications signals.
242620	Intra-building Network Cable – Non-metallic	Includes the original cost of non-metallic cables and wires located on the company's side of the demarcation point or standard network interface inside subscriber's buildings or between buildings on one customer's same premises. It also includes the original cost of optical fiber cable and other associated material used in constructing a physical path for the transmission of telecommunications signals.
243100	Aerial Wire	Includes the original cost of bare line wire and other material used in the construction of such plant.
244100	Conduit Systems	Includes the original cost of conduit, whether underground, in tunnels or on bridges, which is reusable in place. It also includes the cost of opening trenches and of any paving necessary in the construction of conduit plant.
269030	Intangibles – Network Software –Application & Operating	Network related operating and application system software that is purchased, developed internally or licensed from an external source, including right to use (RTU) fees.

## APPENDIX B: FCC Part 32 Account Code Descriptions - Expense Accounts

ACCOUNT CODE	ACCOUNT TYPE	DESCRIPTION
611200	Motor Vehicle Expense	Includes costs of fuel, lubrication, license and inspection fees, washing, repainting, and minor accessories associated with motor vehicles.
611300	Aircraft Expense	Includes such costs as aircraft fuel, flight crews, mechanics and ground crews, licenses and inspection fees, washing, repainting, and minor accessories associated with aircraft.
611400	Special Purpose Vehicles Expense	Includes such costs as fuel, license and inspection fees, washing, repainting, and minor accessories (not operator expense).
611500	Garage Work Equipment Expense	Charged only with costs incurred in connection with the garage work equipment itself (not operator expense).
611600	Other Work Equipment Expense	Charged only with the costs incurred in connection with this work equipment itself (not operator expense).
612100	Land and Building Expense	Includes expenses associated with land and buildings (excluding amortization of leasehold improvements). This account shall also include janitorial service, cleaning supplies, water, sewage, fuel and guard service, and electrical power.
612200	Furniture and Artworks Expense	Includes expenses associated with furniture and artworks such maintenance and repairs, moving and relocating, rental/lease of office equipment, and the cost of insuring furniture and artwork.
612300	Office Equipment Expense	Charged with costs incurred in connection with the office equipment itself, including maintenance and repairs, moving and relocating, rental/lease of office equipment, and the cost of insuring office support equipment.
612400	General Purpose Computers Expense	Includes costs of personnel whose principal job is the physical operation of general-purpose computers and the maintenance of operating systems.
621100	Analog Electronic Expense	Includes expense associated with analog electronic switching. Switching equipment consists of equipment located in the central office or elsewhere, which is used to route telephone calls to their destination, and other equipment associated with central office.

<b>ACCOUNT CODE</b>	<b>ACCOUNT TYPE</b>	<b>DESCRIPTION</b>
621200	Digital Electronic Switching Expense	Includes expenses associated with digital electronic switching. This account includes the cost of repairs, moves and changes, minor purchase, and right-to-use fees.
621500	Electromechanical Switching Expense	Includes expenses associated with electro-mechanical switching. This account includes the cost of repairs, moves and changes, minor purchase, and right-to-use fees.
622000	Operator Systems Expense	Includes expense associated with operator systems equipment. It includes charges related to all types of switchboard equipment except those used solely for recording of calling card telephone numbers in connection with customer charge traffic Operator Number Identification (ONI), and special service switchboards used in conjunction with private line service.
623100	Radio Systems Expense	Includes charges related to equipment associated with radio operations (excluding switchboards).
623200	Circuit Equipment Expense	Includes expenses associated with circuit equipment. It includes charges related to central office equipment other than switching equipment, automatic message recording, operator systems and radio equipment, which is used to derive communication channels or which is used for amplification, modulation, regeneration, testing, balancing or control of signals transmitted over communication transmission channels.
635100	Public Telephone Terminal Equipment Expense	Includes expenses associated with public telephone terminal equipment. It includes the labor and minor material costs of installing, replacing and removing public telephone equipment. It also includes operating leases, rents, and other non-repair items. Beginning in 1997, the FCC deems this activity as non-regulated.
636200	Other Terminal Equipment Expense	Includes expenses associated with other terminal equipment. This account also includes costs of repairs, moves and changes, minor purchases, and right-to-use fees. It covers the costs of receiving training on this type of plant as well as operating leases, rents and other non-repair items.
641100	Pole Expense	Includes expenses associated with poles. It includes the cost of relocating guys, cross-arms, cable or wire in connection with such work. It also includes the cost of repairs, moves and changes, rent, training, and minor purchases.

<b>ACCOUNT CODE</b>	<b>ACCOUNT TYPE</b>	<b>DESCRIPTION</b>
642100	Aerial Cable Expense	Includes charges associated with aerial metallic and optical fiber cable. This account includes the cost of repairs, moves and changes, rent, training, and minor purchases. This account also includes costs related to aerial and optical fiber cable network transmission plant. It includes all charges outside, above ground cables except for intra building Network Cable. It also includes drop and block wire serving aerial cable or aerial wire.
642200	Underground Cable Expense	Includes charges associated with underground cable, both metallic and nonmetallic. It also includes costs of repairs, moves and changes, rent, training, and minor purchases.
642300	Buried Cable	This account shall include expenses associated with buried cable. It includes the cost of repairs, moves and changes, rent, training, and minor purchases.
642400	Submarine Cable Expense	Includes expenses associated with submarine cable, both metallic and nonmetallic. Includes the cost of repairs, moves and changes, rent, training and minor purchases. It also includes charges related to submarine cable network transmission plant.
642500	Deep Sea Cable Expense	Includes charges for both metallic and non-metallic cable, which spans international waters. This account includes costs associated with the costs of repairs, moves and changes, rent, training, and minor purchases related to deep-sea cable.
642600	Intra-building Network Cable Expense	Includes charges associated with intra-building network cable, metallic and nonmetallic. Also includes the cost of repairs, moves and changes, rent, training and minor purchases. This account includes charges for customer facility intra-building network cable generally referred to as house cable. It includes indoor risers and distribution cables extending throughout a building or between groups of buildings forming a continuous cable distribution system on one customer's same premises.
643100	Aerial Wire Expense	Includes charges associated with aerial network transmission plant. It includes the cost of repairs, moves and changes, rent, training, and minor purchases.
644100	Conduit System Expense	Includes expenses associated with conduit systems. It includes charges related to conduit and pipes used for underground dips of aerial wire or aerial cable at boulevards, railroads, etc. It includes charges for pole and building connections for conduit systems.

<b>ACCOUNT CODE</b>	<b>ACCOUNT TYPE</b>	<b>DESCRIPTION</b>
651200	Provisioning Expense	Includes costs incurred in provisioning material and supplies, including office supplies. Also includes receiving and stocking, filling requisitions from stock, monitoring and replenishing stock levels, delivery of material, storage, loading or unloading and administering the reuse or refurbishment of material. Also included are adjustments resulting from the annual or more frequent inventory of material and supplies.
653100	Power Expense	Includes the cost of electrical power used to operate the telecommunications network. It includes the cost of power (excluding labor) for transmitting traffic and operating signals.
653200	Network Administration Expense	Includes costs incurred in network administration. This includes such activities as controlling traffic flow, administering traffic measuring and monitoring devices, assigning equipment and load balancing, collecting and summarizing traffic data, administering trucking, and assigning interoffice facilities and circuit layout work.
653300	Testing Expense	Includes costs incurred in testing telecommunications facilities from a testing facility (test desk or other testing system) to determine the condition of plant on either a routine basis, or prior to assignment of the facilities. The costs also include: receiving, recording and analyzing trouble reports; testing to determine the nature and location of reported trouble condition; and dispatching repair persons or otherwise initiating corrective action.
653400	Plant Operations Administration Expense	Includes costs incurred in the general administration of plant operations.
653500	Engineering Expense	Includes costs incurred in the general engineering of the telecommunications plant, which are not directly chargeable to an undertaking or project. This includes developing input to the fundamental planning process, performing preliminary work or advanced planning in connection with potential undertakings, and performing special studies of an engineering nature.
654000	Access Expense	Includes amounts paid by inter-exchange carriers or other exchange carriers to another exchange carrier for the provision of the carrier's carrier access.
656100	Depreciation Expenses – Telecommunications Plant in Service	Includes the depreciation of capitalized costs in Accounts 2112 through 2441 (see above), inclusive.
656200	Depreciation Expense – Property Held for Future Use	This account includes the depreciation expense for capitalized costs included in Account 2002, Property Held for Future Use.

<b>ACCOUNT CODE</b>	<b>ACCOUNT TYPE</b>	<b>DESCRIPTION</b>
656300	Amortization Expense – Tangible	Includes only the amortization of costs included in Capital Leases (Account 2681) and Leasehold Improvements (Account 2682).
656400	Common Amortization Expense – Intangible	Includes the amortization of costs included in Account 2690, Intangibles.
656500	Amortization – Other	This account includes the amortization of costs recorded to Account 2005, Telecommunications Plant Adjustment.
661100	Product Management	Includes costs incurred in performing administrative activities related to marketing products and services.
661200	Sales	Includes costs incurred in selling products and services.
661300	Product Advertising	Includes costs incurred in developing and implementing promotional strategies to stimulate the purchase of products and services.
662100	Call Completing Services	Includes costs incurred in helping customer's place and complete calls, except directory assistance. This includes handling and recording; intercept; quoting rates, time and charges; and all other activities involved in the manual handling of calls.
662200	Number Services	Includes costs incurred in providing customer number and classified listings. This includes preparing or purchasing, compiling, and disseminating those listings through directory assistance or other means.
662300	Customer Services	Includes costs incurred in establishing and servicing customer accounts. Also includes amounts paid by interexchange carriers or other exchange carriers to another exchange carrier for billing and collection services.
671100	Executive	Includes costs incurred in formulating corporate policy and in providing overall administration and management.
671200	Planning	Includes costs incurred in developing and evaluating long-term courses of action for the future operations of the company.
672100	Accounting and Finance	Includes costs incurred in providing accounting and financial services.
672200	External Relations	Includes costs incurred in maintaining relations with government, regulators, other companies and the general public.
672300	Human Resources	Includes costs incurred in performing personnel administration activities.

<b>ACCOUNT CODE</b>	<b>ACCOUNT TYPE</b>	<b>DESCRIPTION</b>
672400	Information Management	Includes costs incurred in planning, developing, testing, implementing and maintaining databases and application systems for general-purpose computers.
672500	Legal	Includes costs incurred in providing legal services.
672600	Procurement	Includes costs incurred in procuring material and supplies, including office supplies.
672700	Research and Development	Includes costs incurred in making planned search or critical investigation aimed at discovery of new knowledge. Also includes translating research findings into a plan or design for a new product or process or for a significant improvement to an existing product or process, whether intended for sale or use.
672800	Other General and Administrative	Includes costs incurred in performing general administrative activities not directly charged to the user, and not provided for in other accounts.
724000	Operating Other Taxes	Includes all taxes, other than federal, state and local income taxes and payroll-related taxes, related to regulated operations applicable to current periods. Among the items included in this account are property, gross receipts, franchise, and capital stock taxes.



# APPENDIX C1: ICM Expense Methodology Cost Pools

A description of the cost pools and the associated types of costs included in each are listed below.

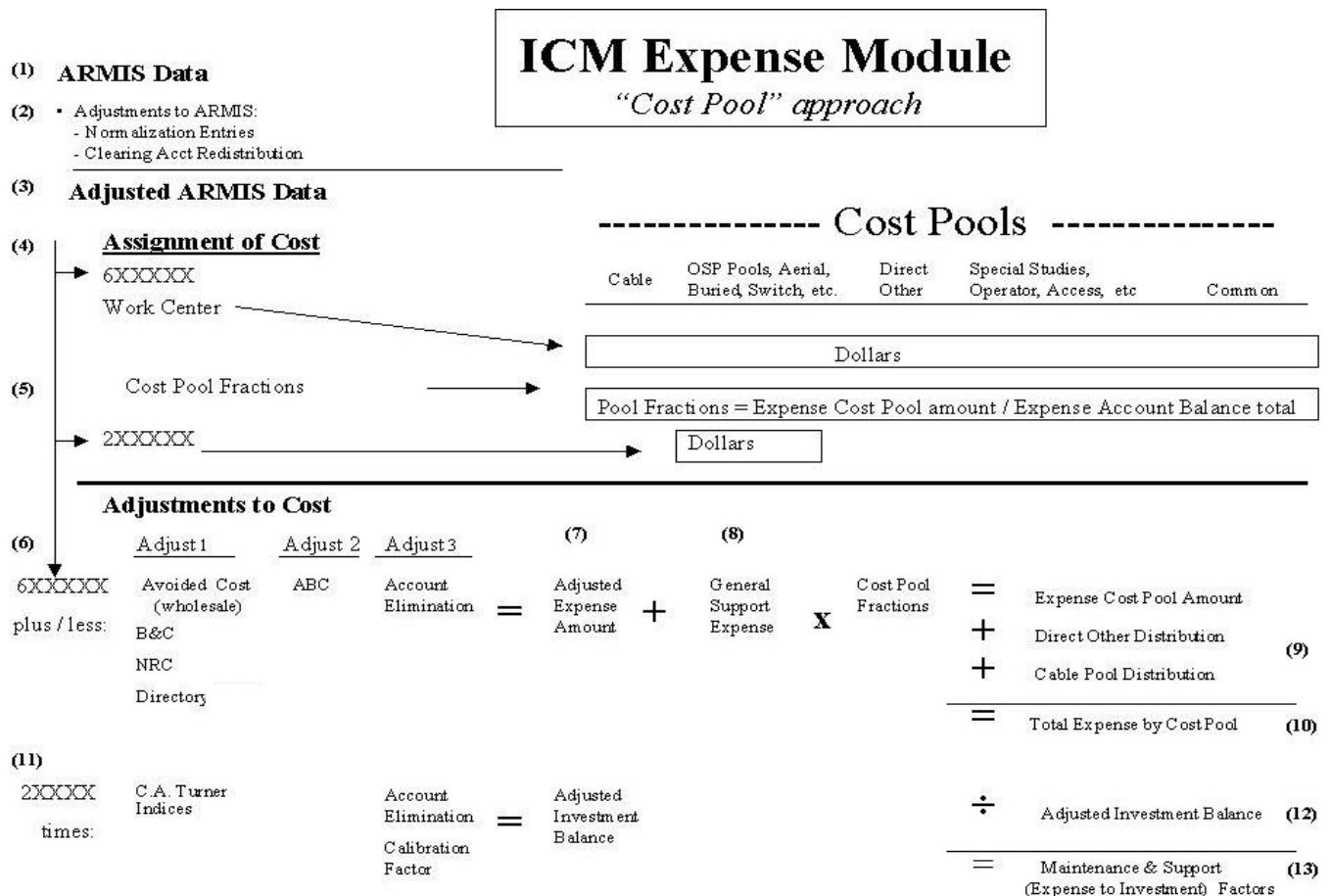
<b><u>Cost Pool</u></b>	<b><u>Types of Costs Included</u></b>
Cable	Costs related to cable that can not be directly attributable to a specific cable cost pool (i.e., Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic and Underground Metallic). These costs include repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Aerial Non-Metallic	Costs related to Aerial Non-Metallic Cable associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Aerial Metallic	Costs related to Aerial Metallic Cable associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Buried Non-Metallic	Costs related to Buried Nonmetallic Cables associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Buried Metallic	Costs related to Buried Metallic Cables associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Underground Non-Metallic	Costs related to Underground Nonmetallic Cables associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Underground Metallic	Costs related to Underground Metallic Cables associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Poles	Costs related to Poles associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as tree trimming, travel, training and rents.
Conduit	Cost related to Conduits associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Transmission	Costs related to Circuit and Transmission equipment associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.

**Cost Pool**

**Types of Costs Included**

Switching	Costs related to Switching equipment, COE Engineering, Switch Testing, NOC Centers associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Access	Access charges paid to other carriers
Information, Originating and Terminating (IOT)	Costs related to Information, Originating and Termination equipment associated with repair and maintenance, operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
Direct Other	Costs directly attributed to network operations but not associated with a specific network cost pool (i.e., Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic, Underground Metallic, Poles, Conduit, Transmission, Switching, and IOT).
B & C	Costs related to billing and collection activities.
Operator Services	Costs associated with Operator Services
Public Communication	Costs associated with Public Communication services
Consumer	Costs associated with the Consumer Line of Business
Business	Costs associated with the Business Line of Business
Carrier (CXR)	Costs associated with the Carrier Line of Business
Common	Costs incurred in support of all products, services and network elements but are not directly attributable to the provision of a specific product, service or unbundled network element or a line of business.

# APPENDIX C2: Cost Pool Methodology Roadmap



## APPENDIX D1: Depreciation & Return Factor Formula and Calculation

*Depreciation and Return* is a composite of depreciation expense and a return on plant investment .

*Depreciation & Return Factor* = Annuity (Net Investment Rate, ROR, Plant Life)

where:

$$\text{i) Annuity (Net Investment Rate, ROR, Life) = \frac{\text{Net Investment Rate} \times \text{ROR} \times (1 + \text{ROR})^{\text{Life}}}{((1 + \text{ROR})^{\text{Life}}) - 1}$$

$$\text{ii) Net Investment Rate} = 1 - \text{Present Value (Salvage Rate, ROR, Life)}$$

where :

$$\text{Present Value (Salvage Rate, ROR, Life)} = \left( \frac{\text{Salvage Value}}{(1 + \text{ROR})^{\text{Life}}} \right)$$

$$\text{iii) ROR} = \text{Rate of Return}$$

$$\text{iv) Life} = \text{Economic or usable life of the plant}$$

## APPENDIX D2: Composite Income Tax Factor Formula and Calculation

The *Composite Income Tax* factor is calculated as follows:

Composite Income Tax Factor =

$$\text{ITF} * (\text{ROR} + \text{SFDEPR} - \text{SLDEPR}) - \text{composite rate} * (1 + \text{ITF}) * (\text{annuity (present value of (MACRS))} - \text{SLDEPR}).$$

Where:

i) ROR = Rate of Return

ii) SFDEPR = Sinking Fund Depreciation =

$$\frac{(1 - \text{Salvage Rate}) * \text{ROR}}{((1 + \text{ROR})^{\text{life}}) - 1}$$

iii) SLDEPR = Straight Line Depreciation Rate =

$$\frac{1 - \text{Salvage}}{\text{Life}}$$

$$\text{iv) } \text{ITF} = \frac{\text{Composite Tax Rate}}{1 - \text{Composite Tax Rate}} * \left[ 1 - \frac{\% \text{Debt} * \text{Debt Rate}}{\text{ROR}} \right]$$

v) MACRS = Modified Accelerated Capital Recovery System that allows companies to accelerate the depreciation of assets for tax purposes over pre-established class lives.

# APPENDIX E: Data Input Table – Account [XXGTEEXP.DB]

**Purpose:** Provides expense and investment data, applicable adjustments and the assignment of costs to individual Cost Pools<sup>1</sup> for each respective FCC Part 32 account<sup>2</sup>.

**How to View On-Line:** Using the ICM tool bar, select

View Tables / Expense / Account

Figure E.1 shown below, illustrates a portion of the data contained within the Account data input table. A complete listing of all data entry fields is found in the section following Figure E.1.

Figure E.1

Account	Category	Amount	Adjust1	Adjust2	Adjust3	Default Adj3	Calc	Filter	Cylst	FBlst	Cylst	FBlst	Filter
211100	R	8919301	1	1	1	1	0.0319	0	0	0	0	0	0
211100	W	8919301	1	1	1	1	0.0319	0	0	0	0	0	0
211200	R	15790884	1.1115	1	1	1	1.79617859078	0	0	0	0	0	0
211200	W	15790884	1.1115	1	1	1	1.79617859078	0	0	0	0	0	0
211300	R	0	1	1	0	0	0	0	0	0	0	0	0
211300	W	0	1	1	0	0	0	0	0	0	0	0	0
211400	R	0	1	1	1	1	0	0	0	0	0	0	0
211400	W	0	1	1	1	1	0	0	0	0	0	0	0
211500	R	699050	1.1482	1	1	1	0	0	0	0	0	0	0
211500	W	699050	1.1482	1	1	1	0	0	0	0	0	0	0
211600	R	24188198	1.1341	1	1	1	1.8724439059	0	0	0	0	0	0
211600	W	24188198	1.1341	1	1	1	1.8724439059	0	0	0	0	0	0
212100	R	154807104	1.5755	1	1	1	0.0319	0	0	0	0	0	0
212100	W	154807104	1.5755	1	1	1	0.0319	0	0	0	0	0	0
212200	R	7602429	1.2581	1	1	1	1.4247443648	0	0	0	0	0	0
212200	W	7602429	1.2581	1	1	1	1.4247443648	0	0	0	0	0	0
212300	R	17539514	1.02009	1	1	1	1.8953535961	0	0	0	0	0	0
212300	W	17539514	1.02009	1	1	1	1.8953535961	0	0	0	0	0	0
212400	R	35281072	0.6632	1	1	1	1.8953535961	0	0	0	0	0	0
212400	W	35281072	0.6632	1	1	1	1.8953535961	0	0	0	0	0	0
221100	R	4000	0.9856	1	0	0	0	0	0	0	0	0	0
221100	W	4000	0.9856	1	0	0	0	0	0	0	0	0	0
221200	R	464461000	0.7414	1	4329370772	1	0	0	0	0	0	0	0
221200	W	464461000	0.7414	1	2412368442	1	0	0	0	0	0	0	0
221500	R	0	1	1	0	0	0	0	0	0	0	0	0
221500	W	0	1	1	0	0	0	0	0	0	0	0	0
222000	R	3709000	1.0284	1	1	1	0	0	0	0	0	0	0
222000	W	3709000	1.0284	1	1	1	0	0	0	0	0	0	0
223100	R	10787000	1.0423	1	1	1	0	0	0	0	0	0	0
223100	W	10787000	1.0423	1	1	1	0	0	0	0	0	0	0
223200	R	364969000	0.9123	1	1990732389	1	0	0	0	0	0	0	0
223200	W	364969000	0.9123	1	6571602932	1	0	0	0	0	0	0	0

Note: The numbers shown in the above illustration are for presentation purposes only.

<sup>1</sup> For a detailed description of the FCC Part 32 account codes, see the Account Code Descriptions for investment accounts found in Appendix A and for expense accounts in Appendix B.

<sup>2</sup> FCC Part 32 Uniform System of Accounts (USOA) for telecommunications companies

<b>COLUMN HEADING</b>	<b>COLUMN DESCRIPTION</b>
ACCOUNT	FCC Part 32 account number
CATEGORY	Indicates Wholesale (W) or Retail (R) information
AMOUNT	Regulated expense and investment data as reported in the FCC ARMIS Joint Cost Report (43-03) adjusted for any applicable normalization entries.
ADJUST1	Factor used to adjust the ARMIS account balances, in the AMOUNT column, for items such as avoided cost (wholesale only), billing and collection, directory cost, non-recurring activities and any other applicable adjustments.
ADJUST2	Factor used to adjust ARMIS account balances, in the AMOUNT column, for expenses identified and recovered in the activity based costing methodology (i.e. – service assurance; sales, marketing and advertising, etc.).
ADJUST3	Factor used to adjust the ARMIS account balances, in the AMOUNT column, for the following items: <ol style="list-style-type: none"> <li>1) Elimination of non-forward looking costs such as account 2211/6211 (Analog Switch), 2215/6215 (Electromechanical Switch), and 2431/6431 (Aerial Wire).</li> <li>2) Elimination of account balances in which the combination of ADJUST1 and ADJUST2 exceeds 100% of the ARMIS account balance included in the AMOUNT column.</li> <li>3) Adjustment to calibrate the investment data associated with Switch, Circuit Equipment, and Outside Plant accounts, to the levels calculated by the Switch, Loop, Interoffice Transport, and SS7 Modules in ICM.</li> </ol>
DEFAULT ADJ3	The data contained in this column is identical to the data contained in ADJUST3 except the DEFAULT ADJ3 column does not contain the adjustment used to calibrate the investment associated with the Switch, Circuit Equipment, and Outside Plant accounts. The data in this column is used to reset the data in ADJUST3 when the user elects to run ICM without the affect of investment calibration.
CABLE	Portion of account mapped to Cable cost pool associated with cable costs that cannot be directly attributable to a specific cable cost pool (i.e.- Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic and Underground Metallic). These costs include repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
FIAER	Portion of account mapped to Aerial Non-Metallic cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
CUAER	Portion of account mapped to Aerial Metallic cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
FIBUR	Portion of account mapped to the Buried Non-Metallic cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.

<b>COLUMN HEADING</b>	<b>COLUMN DESCRIPTION</b>
CUBUR	Portion of account mapped to the Buried Metallic cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
FIUND	Portion of account mapped to Underground Non-metallic cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
CUUND	Portion of account mapped to the Underground Metallic cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
POLES	Portion of account mapped to the Poles cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as tree trimming, travel, training and rents.
CONDUIT	Portion of account mapped to the Conduit cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents.
TRANSMISSION	Portion of account mapped to the Transmission cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents related to Circuit and Transmission equipment.
SWITCH	Portion of account mapped to the Switch cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents for Switching equipment, COE Engineering, Switch Testing, NOC Centers.
ACCESS	Portion of account mapped to the Access cost pool associated with Access charges paid to other carriers.
IOT	Portion of account mapped to the IOT cost pool associated with repair & maintenance (R&M), operational support, capital carrying charges related to general support assets and other costs such as travel, training and rents for Information Originating and Terminating equipment.
DIRECT OTHER	Portion of account mapped to the Direct Other cost pool attributed to network operations but not associated with a specific network cost pool (i.e.- Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic, Underground Metallic, Poles, Conduit, Transmission, Switching, and IOT).
BILL_PAY	Portion of account mapped to the Billing & Collections cost pool associated with billing and collection activities.
OPER_SERV	Portion of account mapped to the Operator Services cost pool associated with Operator Services costs.
PUBCOM	Portion of account mapped to the Public Communications cost pool associated with Public Communication services costs.



COLUMN HEADING	COLUMN DESCRIPTION
CONSUMER	Portion of account mapped to the Consumer cost pool associated with the Consumer Line of Business.
BUSINESS	Portion of account mapped to the Business cost pool associated with the Business Line of Business.
CXR	Portion of account mapped to the CXR cost pool associated with the Carrier Line of Business.
COMMON	Portion of account mapped to the Common cost pool that relate to costs incurred in support of all products, services and network elements but are not directly attributable to the provision of a specific product, service or unbundled network element or a line of business.

## APPENDIX F: Data Input Table – Plant Life [XXPLNTLF.DB]

**Purpose:** Contains the economic, book and MACR's depreciable lives and salvage values for plant investment, by FCC Part 32 account. For a complete listing of all relevant FCC Part 32 investment accounts please refer to Appendix A.

**How to View On-Line:** Using the ICM tool bar, select

View Tables / Expense / Plant Life

Figure F.1 shown below illustrates a portion of the data contained within the Plant Life data input table. A detailed listing of all data entry fields is found in the section following Figure F.1.

Figure F.1

Account	Economic Life	Econ Salvage	Book Life	Book Salvage	Macrs Years
211100	0	0	0	0	0
211200	8	0.1	10.3	0.2	5
211300	5	0.5	0	0	5
211400	10	0	9.3	0.2	5
211500	10	0	18	0.05	5
211600	10	0	15	0.1	5
212100	30	0	43	0	32
212200	10	0	20	0.1	7
212300	10	0	8	0	7
212400	5	0	8	0.05	5
221100	0	0	0	0	5
221200	10	0	16.5	0.03	5
221500	0	0	0	0.02	10
222000	10	0	12	0.02	5
223100	10	0	14	0	5
223200	8	0	12	0.04	5
232100	0	0	0	0	7
235100	7	0	8	0.25	7
236200	5	0	10	0.05	7
241100	25	-0.5	28	0.75	15
242110	15	-0.1	21	0.15	15
242120	20	-0.1	30	-0.05	15
242210	15	-0.1	26	0.15	15
242220	20	-0.1	30	0.05	15
242310	15	-0.1	23	0.05	15
242320	20	-0.1	30	0.05	15
242410	15	-0.1	22	-0.1	15
242420	20	-0.1	22	-0.1	15
242510	15	-0.1	0	0	15
242520	20	-0.1	0	0	15
242610	15	-0.1	20	-0.3	15
242620	20	-0.1	20	-0.3	15
243100	15	-0.1	15	0.15	15

*Note: The numbers shown in the above illustration are for presentation purposes only.*

COLUMN HEADING	COLUMN DESCRIPTION
ACCOUNT	FCC Part 32 account number for investment related accounts.
ECONOMIC LIFE	The economic life associated with plant investment used in the calculation of capital recovery and composite income tax within ICM.
ECON SALVAGE	The economic life salvage percentage associated with plant investment used in the calculation of capital recovery and composite income tax within ICM.
BOOK LIFE	PUC/PSC mandated depreciable life associated with plant investment used in the calculation of capital recovery and composite income tax within ICM.
BOOK SALVAGE	PUC/PSC mandated depreciable life salvage percentage associated with plant investment used in the calculation of capital recovery and composite income tax within ICM.
MACRS YEARS	Depreciable Life according to the Modified Accelerated Capital Recovery System mandated by the IRS.

## APPENDIX G: Data Input Table – Base [XXEXBASE.DB]

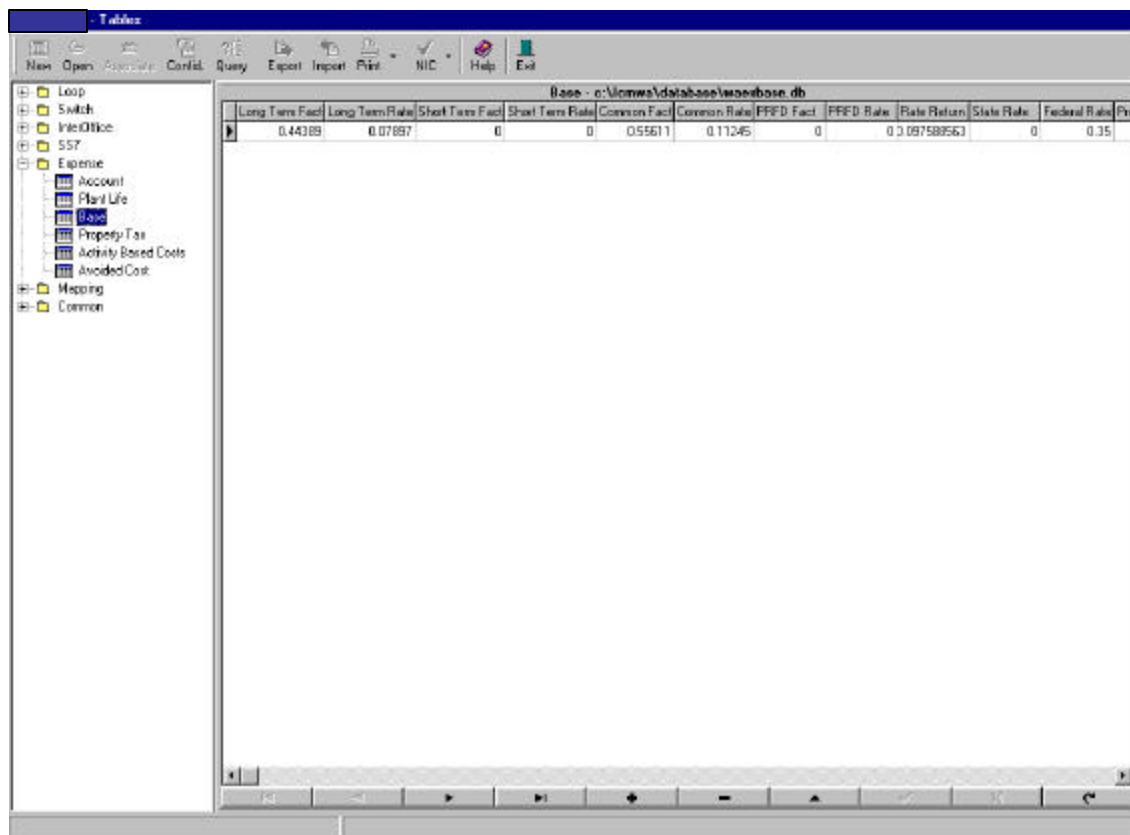
**Purpose:** This table contains the capital structure (i.e., fraction of capital composed of short-term debt, long-term debt, common stock, and preferred stock), cost of capital, statutory state and federal income tax rates, property tax rate and annual regulated revenues.

**How to View On-Line:** Use the ICM tool bar and select

View Tables / Expense / Base

Figure G.1 shown below, illustrates a portion of the data contained within the Base data input table. A detailed listing of all data entry fields is found in the section following Figure G.1.

Figure G.1



Long Term Fact	Long Term Rate	Short Term Fact	Short Term Rate	Common Fact	Common Rate	PFD Fact	PFD Rate	Rate Return	State Rate	Federal Rate	Property Tax Rate
0.44389	0.07897	0	0	0.55611	0.11245	0	0.097589563	0	0.35		

*Note: The numbers shown in the above illustration are for presentation purposes only.*

<b>COLUMN HEADING</b>	<b>COLUMN DESCRIPTION</b>
LONG TERM FACT	The portion of the company's capitalization that is long-term debt.
LONG TERM RATE	Interest rate the company expects to pay on long-term debt
SHORT TERM FACT	The portion of the company's capitalization that is short-term debt.
SHORT TERM RATE	Interest rate the company expects to pay on short-term debt.
COMMON FACT	The portion of the company's capital structure that includes common equity.
COMMON RATE	Cost of financing with common equity.
PRFD FACT	Portion of the company's capital structure that is preferred stock.
PRFD RATE	Expected cost to the company of its preferred stock
RATE RETURN	Return on capital; this field is calculated within ICM as follows:  $(LONG\ TERM\ FACT * LONG\ TERM\ RATE) +$ $(SHORT\ TERM\ FACT * SHORT\ TERM\ RATE) +$ $(COMMON\ FACT * COMMON\ RATE) +$ $(PRFD\ FACT * PRFD\ RATE).$
STATE RATE	Statutory State Income Tax rate applicable for each individual state.
FEDERAL RATE	Statutory Federal Income Tax rate.
PROPERTY TAX	Property tax rate applicable for each individual state. This rate is calculated by taking the ratio of current annual property tax expense to the current gross taxable plant balance.
TOTAL REVENUES	Total regulated revenues, reported in the ARMIS Joint Cost report (43-03), used in the computation of the common cost factors.
DATA YEAR	Year applicable to the ARMIS Joint Cost report (43-03) associated with the "total revenues" shown above.

## APPENDIX H: Data Input Table – Property Tax [XXPROPTAX.DB]

**Purpose:** Identifies whether property tax is applicable, based on state requirements, for general support investments (i.e. – FCC Part 32 account 2111 through 2124) and internal use software (i.e. – FCC Part 32 account 2690).

**How to View On-Line:** Use the ICM tool bar and select

View Tables / Expense / Property Tax

Figure H.1 shown below illustrates the data contained within the Property Tax data input table. A detailed listing of all data entry fields is found in the section following Figure H.1.

Figure H.1

Account	Property Tax Flag	Property Tax
211100	1	0.007679
211200	0	0.007679
211300	1	0.007679
211400	1	0.007679
211500	1	0.007679
211600	1	0.007679
212100	1	0.007679
212200	1	0.007679
212300	1	0.007679
212400	1	0.007679
269000	1	0.007679

*Note: The numbers shown in the above illustration are for presentation purposes only.*

<b>COLUMN HEADING</b>	<b>COLUMN DESCRIPTION</b>
ACCOUNT	FCC Part 32 account number for general support investments (i.e. – account 211100 through 212400) and internal use software (i.e. – account 269030).
PROPERTY TAX FLAG	Identifies the general support investment and internal use software accounts that should have property taxes applied to them. An account in which a “1” appears in the property tax flag field indicates that property tax is applicable to that particular investment account and a “0” indicates property tax is not applicable.
PROPERTY TAX	The property tax rate developed for a given state. This value is calculated based on Total Actual/Estimated Property Taxes divided by Gross Taxable Investment.

# APPENDIX I: Data Input Table - Non BNF & Activity Based Cost [XXNBNF.DB]

**Purpose:** This input table contains the Non-BNF and Activity Based Cost components for expenses identified in the activity based cost studies.

**How to View On-Line:** Use the ICM tool bar and select

View Tables / Expense / Activity Based Costs

Figure I.1 shown below illustrates the data contained within the Non BNF & Activity Based Cost data input table. A detailed listing of all data entry fields is found in the section following Figure I.1.

Figure I.1

Item	Description	Average	VS	V/S
ADBUS1	ADV Business Line	0.010635	0.010635	0.010635
ADCENT	ADV CentralNet	0.010635	0.010635	0.010635
ADCOIN	ADV Coin	0.010635	0.010635	0.010635
ADCUSTOM	ADV Vertical Services	0.017406	0.017406	0.017406
ADISDNB	ADV ISDN BRI	0.010635	0.010635	0.010635
ADISDNP	ADV ISDN PRI	0.010635	0.010635	0.010635
ADMEABUS	ADV Measured Business	0.010635	0.010635	0.010635
ADMEACON	ADV Measured Console	0.018115	0.018115	0.018115
ADMESS	ADV Message Toll	0.016436	0.016436	0.016436
ADDPW	ADV Cust. Dmnd Pay	0.010635	0.010635	0.010635
ADPBX	ADV PBX Trunk	0.010635	0.010635	0.010635
ADRIE	ADV Res Flat Rate	0.018115	0.018115	0.018115
ADRIE	ADV Res Line Rate	0.018115	0.018115	0.018115
ADSPEC	ADV Special Access	0.0106	0.0106	0.0106
ADSPSW	ADV Switched/Special	0.00432	0.00432	0.00432
BCCBUS	Billing & Collection Business	11.01	8.33	2.68
BCCABS	Billing & Collection CABS	0.00042	0.00036	6E-5
BCCRES	Billing & Collection Residents	11.18	7.51	3.27
BCTOLL	Billing & Collection Toll	0.018894	0.01279	0.004104
BDS1NAC	BNF - Digital NAC (4 wire) - Or	6.574353	4.811114	1.763239
BDS1PRINAC	BNF - DS1 or PRI NAC - Oregon S	89.583311	67.305739	22.287572
BDS3NAC	BNF - DS3 NAC - Oregon Specific	89.583311	67.305739	22.287572
BIDT	BNF - Interface Dedicated Tra	14.415701	10.982079	3.433622
BISDNNAC	BNF - ISDN NAC (Bn)	6.574353	4.811114	1.763239
BIJUNPD50	BNF - Jumper NAC DS0 (2 wire)	0.278529	0.218594	0.059935
BIJUNPD51	BNF - Jumper NAC DS1 (4 wire)	0.278529	0.218594	0.059935
BIJUNPD53	BNF - Jumper NAC DS3 Electrical	0.278529	0.218594	0.059935
BIJUNPDPT	BNF - Jumper NAC DS3 Optical (Fib	0.278529	0.218594	0.059935
BLECSW	BNF - Switching	0.000497	0.000398	0.000109
BMULTI	BNF - Multiplexing	0	0	0
BNAC2W	BNF - Basic NAC 2/Wire	6.574353	4.811114	1.763239
BNAC4W	BNF - Basic NAC 4/Wire	6.574353	4.811114	1.763239
BNACDST	BNF - NACC DS1 Dedicated - Oreg	0.278529	0.218594	0.059935

Note: The numbers shown in the above illustration are for presentation purposes only.



COLUMN HEADING	COLUMN DESCRIPTION
ITEM	Item variable name that denotes the Non-BNF or Activity Based Cost component and associated activity.
DESCRIPTION	<p>Description of the Non-BNF or Activity Based Cost component and associated activity.</p> <p>ADV Advertising</p> <p>MKT Marketing</p> <p>SAL Sales</p> <p>BC Billing and Collection</p> <p>DIR Directories</p> <p>AC Access</p> <p>MR Service Assurance - Services</p> <p>All other variables Service Assurance - UNEs</p>
AVERAGE	Sum of the Volume Sensitive and Volume Insensitive components
VS	Volume Sensitive. This is the cost which increases or decreases with the level of output of a product produced at a positive level of output.
VIS	Volume Insensitive. Fixed cost that does not change based on the level of output.

## APPENDIX J: Data Input Table – Avoided Cost [XXAC.DB]

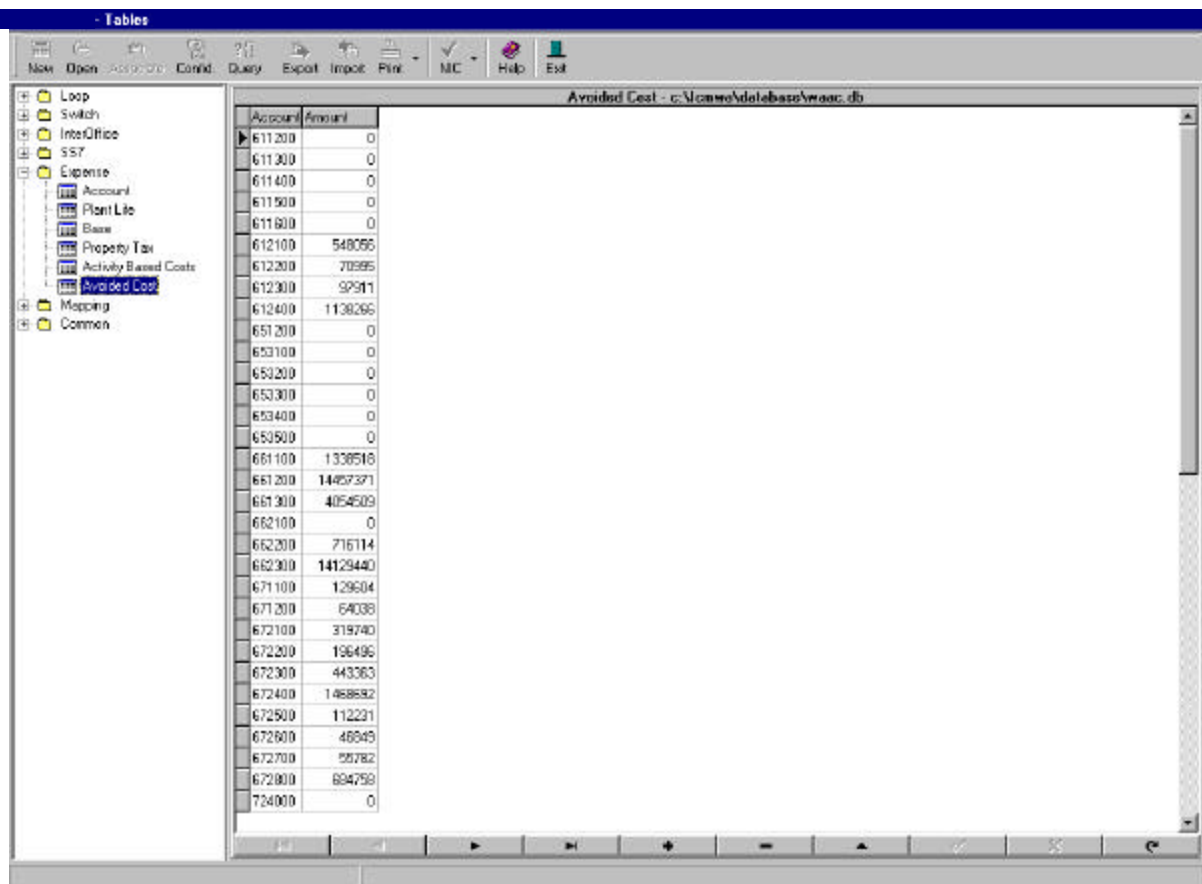
**Purpose:** This input table contains the Avoided Costs associated with retail only activities, which are excluded from ARMIS balances when performing wholesale cost studies.

**How to View On-Line:** Use the ICM tool bar, select

View Tables / Expense / Avoided Cost

Figure J.1 shown below illustrates the data contained within the Avoided Cost data input table. A detailed listing of all data entry fields is found in the section following Figure J.1.

Figure J.1



Account	Amount
611200	0
611300	0
611400	0
611500	0
611600	0
612100	548055
612200	70995
612300	92911
612400	1138266
651200	0
653100	0
653200	0
653300	0
653400	0
653500	0
661100	1338518
661200	14457371
661300	4054503
662100	0
662200	716114
662300	14129440
671100	129504
671200	64038
672100	319740
672200	196496
672300	443363
672400	1468682
672500	112231
672600	46949
672700	55782
672800	694759
724000	0

*Note: The numbers shown in the above illustration are for presentation purposes only.*